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PERSPECTIVES

ON LABOUR AND INCOME

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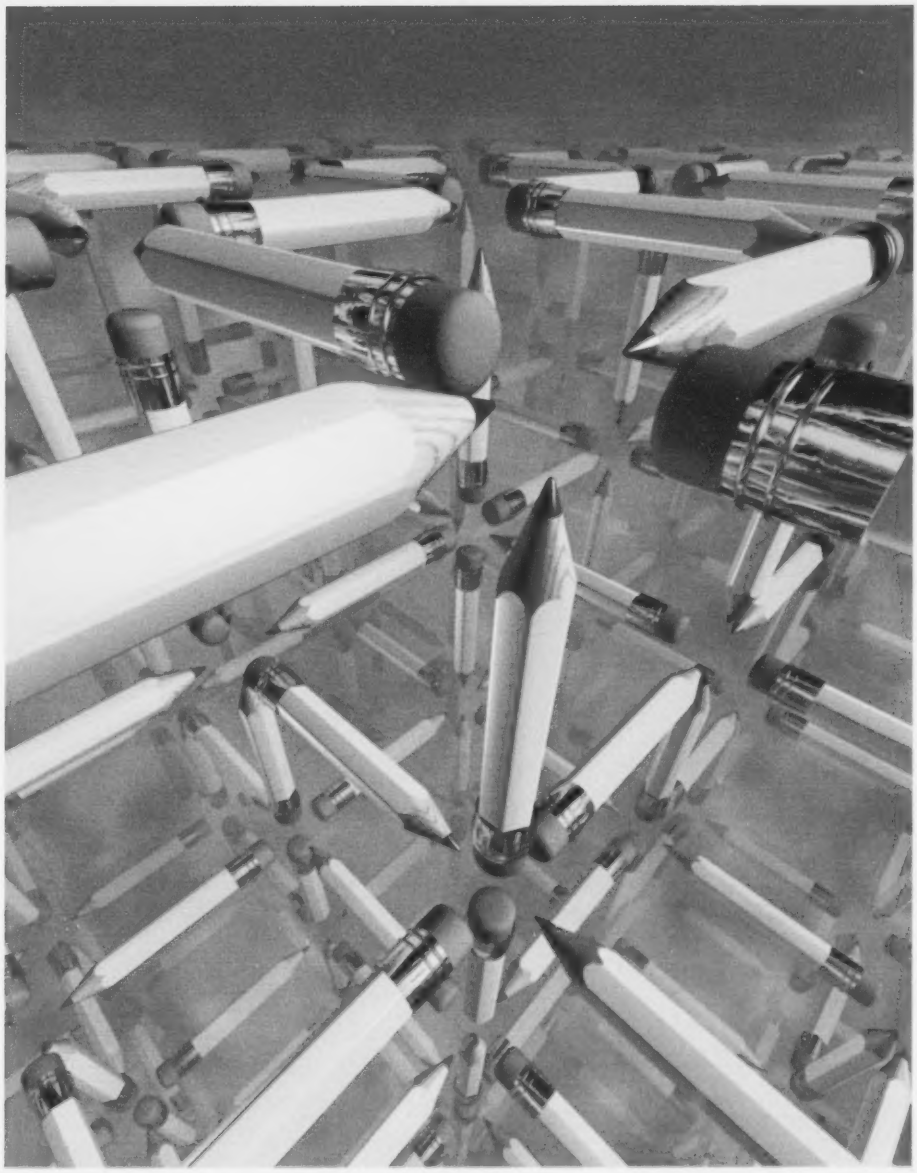
- INFORMATION TECHNOLOGY WORKERS
- PROPERTY TAXES
- FACT-SHEET ON PROPERTY TAXES



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p preliminary
r revised
x confidential
E use with caution
F too unreliable to be published

Highlights

In this issue

Information technology workers

- Over 387,000 people were employed in information technology (IT) occupations in 2001, accounting for nearly 3% of all employed Canadians.
- Over half of IT specialists worked as information systems analysts and computer programmers (52%), and nearly one-quarter as user support technicians, and computer and network operators (24%). The remainder were computer and software engineers (14%), and web designers, database analysts, and systems testing technicians (11%).
- IT specialists are relatively young, highly educated and command high earnings. Median earnings in 2001 were over $45,000 compared with $28,000 for all employed Canadians.
- Two-thirds of IT specialists worked in five urban centres. Ottawa-Gatineau had the highest concentration—8% of all workers.
- More than one-quarter (27%) of IT specialists in 2001 were women. Highly educated, a majority were specialized in the non-traditional science, engineering and mathematics field of study. However, they commanded lower median earnings ($41,000) than men.
- Immigrants accounted for almost one-third (32%) of workers in IT specialties, and nearly half arrived in Canada in the 1990s. Three in 10 arrived after 1996, a period coinciding with the high-tech boom. By contrast, immigrants constituted 20% of workers in all occupations, and only 30% arrived in the 1990s.

Property taxes

- Average property taxes in 1998 were highest in Central Canada ($2,230 in Ontario and $2,030 in Quebec) and lowest in Newfoundland and Labrador ($640).
- Families in British Columbia, where property values are relatively higher, did not necessarily pay higher property taxes. In 1998, they paid 0.7% of market value compared with 1.9% in Quebec and Manitoba.
- Income taxes far exceed property taxes. In 1998, the majority of families paid less than 5% of their income in property taxes while spending 10% or more on income tax. Overall, income tax averaged more than seven times the property tax bill.
- While income taxes are progressive (reducing income inequality), property taxes are regressive (increasing inequality). Families with incomes of $100,000 or more paid 28.6% in income tax compared with only 1.8% in property tax. The respective shares were 4.0% and 10.0% for those with incomes under $20,000. Property taxes were most regressive at the bottom of the income distribution.
- Since property taxes are not related to the ability to pay, the elderly and those in low-income groups paid proportionately more. Even though on average the elderly had significant financial assets and home equity, the low-income elderly paid 11.7% of their income in property taxes while their non low-income counterparts paid just 4.2%.

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Information technology workers

Roman Habtu

E-MAIL, THE INTERNET and surfing the Web have become as integral to our daily work lives as the telephone. Yet these technologies barely existed a decade ago. The rapid growth of the information, communication and technology industry in the 1990s created a surge in demand for people skilled in computer specialties. As demand grew, so did supply. Information technology (IT) occupations became an attractive profession for people planning or changing their career. The 2001 Census collected the first information about these new occupations using the National Occupational Classification for Statistics, 2001 (see *Data source and definitions*). While some of these occupations may have existed prior to the 1996 Census, the number of jobs within each occupation was not large enough to warrant a separate occupational code.

Except for anecdotal evidence, little is known about the people who design, produce, and service the technology we use every day. Who works in these occupations? What is their education? How many women are there? Or immigrants? Do workers in these occupations prefer self-employment? Do they work longer hours, and how much do they earn? In which industries, provinces and urban centres are they concentrated?

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Table 1: Labour force activity, experienced labour force*

	Labour force		Employed		Unemployment rate
	'000	%	'000	%	%
All occupations	**15,576.6**	**100.0**	**14,695.1**	**100.0**	**5.7**
All occupations other than natural and applied sciences	14,572.8	93.6	13,738.0	93.5	5.7
Natural and applied sciences	1,003.8	6.4	957.1	6.5	4.7
IT occupations	**406.7**	**2.6**	**387.5**	**2.6**	**4.7**
Computer engineers (except software engineers)	27.9	6.9	26.8	6.9	4.1
Information systems analysts and consultants	106.7	26.2	103.1	26.6	3.3
Database analysts and data administrators	14.1	3.5	13.6	3.5	4.0
Software engineers	27.0	6.6	25.9	6.7	3.9
Computer programmers and interactive media developers	102.1	25.1	96.6	24.9	5.4
Web designers and developers	24.2	5.9	22.2	5.7	8.4
Computer and network operators and web technicians	48.1	11.8	45.8	11.8	4.9
User support technicians	49.6	12.2	47.0	12.1	5.2
Systems testing technicians	7.1	1.7	6.6	1.7	6.4

Source: Census of Canada, 2001

* *Those employed in the week prior to census enumeration day, or unemployed and last worked in 2000 or 2001.*

IT almost 3% of total employment

Over 387,000 people worked in occupations related to information technology in 2001 (Table 1). This number represented almost 3% of all employed Canadians in 2001, and 40% of those employed in natural and applied sciences and related occupations.

Three-quarters of these workers were employed in four of the nine occupations examined: information systems analysts and consultants, computer programmers, user support technicians, and computer and network operators and web technicians. Computer and software engineers constituted half of those remaining.

Almost 90% of IT workers were employees in 2001, as were workers in all occupations (88%). However, this percentage masks differences within some IT occupations. For example, more than one in four web designers were self-employed.

Finding work seemed to present few problems. At 4.7%, the unemployment rate for IT workers was significantly lower than the overall rate (7.4%); it was also lower than the rate for occupations other than natural and applied sciences (5.7%).[1] This reflects the favourable labour market for most high-technology workers during this period.

IT attractive to the young and educated

Younger entrants into the labour market were attracted to new occupations in information technology. In 2001, the average age of workers in these occupations was 36 compared with 39 for all occupations and 38 for natural and applied sciences and related occupations (Table 2). Specific occupations had even younger age profiles. For example, nearly 7 in 10 web designers were under 34 with an average age of 32.

A higher proportion of IT specialists (44%) had at least a bachelor's degree compared with those in natural and applied sciences and related occupations (41%). This is more than double the proportion in the employed population (20%). Most specialized in fields of study related to applied sciences, engineering and mathematics (72%)—similar to the overall natural and applied sciences occupation group where three-quarters of all workers specialized in these fields.

Earnings and hours

Only one in seven employed workers in 2001 earned $60,000 or more. By contrast, more than one in four IT specialists enjoyed such earnings, as did those in natural and applied science occupations. Furthermore, while more than one in three of the total employed earned less than $20,000, the proportion was only one in six among IT specialists. Median earnings were also above the national average, indicating high returns to this highly educated group.

Part-time work was less prevalent among IT specialists—6% versus 18% overall. This was also the case among workers in the natural and applied sciences and related occupations.

Table 2: Characteristics of employed workers

	All occupations	Sciences	IT occupations
		'000	
Total	**14,695.1**	**957.1**	**387.5**
Average age (years)	39	38	36
		%	
Both sexes	**100.0**	**100.0**	**100.0**
Men	53.1	78.6	73.0
Women	46.9	21.4	27.0
Immigrant status			
Canadian-born	79.7	72.1	67.6
Immigrant	19.9	27.2	31.5
Non-permanent resident	0.5	0.7	0.8
Education			
High school or less	35.0	8.5	6.7
Postsecondary	45.4	50.5	49.3
Bachelor's degree	19.6	41.0	44.1
Province			
Newfoundland and Labrador	1.3	1.1	0.7
Prince Edward Island	0.4	0.3	0.3
Nova Scotia	2.7	2.2	1.6
New Brunswick	2.2	1.7	1.5
Quebec	23.4	23.4	21.7
Ontario	38.9	42.2	50.0
Manitoba	3.7	2.7	2.3
Saskatchewan	3.3	2.0	1.5
Alberta	10.9	11.9	9.2
British Columbia	12.8	12.2	11.0
Yukon, Northwest Territories and Nunavut	0.3	0.3	0.1
Region			
Urban	80.5	87.9	92.7
Rural	19.5	12.1	7.3
Work status			
Part-time*	18.1	5.9	6.1
Full-time	81.9	94.1	93.9
50 hours or more	21.7	18.0	14.5
Employees	87.6	89.8	89.3
Self-employed**	12.4	10.2	10.7
Average hours worked	39	41	40
Income			
Under $20,000	35.4	16.4	16.9
$20,000 - $39,999	32.1	24.7	24.1
$40,000 - $59,999	18.8	29.6	29.6
$60,000 and over	13.8	29.2	29.4
Median earnings ($)	28,000	44,900	45,500
Industry			
Manufacturing	13.8	17.8	9.8
Information and culture	2.7	5.8	11.5
Professional, scientific and technical services	6.4	31.7	40.9
Public administration	5.9	10.6	8.8
All other industries	71.2	34.1	29.0

Source: Census of Canada, 2001

* *Less than 30 hours.*

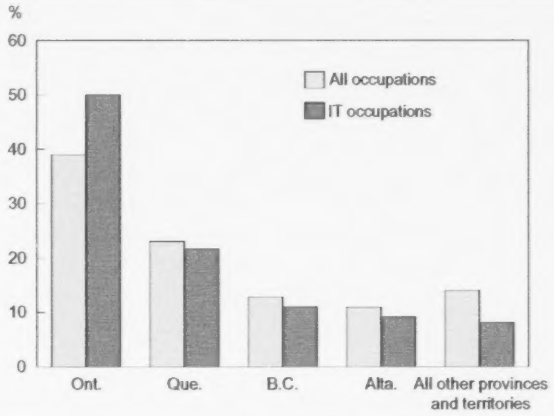
** *Incorporated and unincorporated.*

Working longer hours is linked with higher earnings, and is largely associated with those with more education (Morissette, Myles and Picot 1993). In 2001, more than one in five employed workers in Canada put in 50 hours or more per week. Given their level of education, one might expect an even higher proportion of IT specialists to put in such long hours. However, only one in seven worked 50 hours or more, a proportion also lower than in natural and applied science occupations. These proportions partly reflect the downturn in demand for IT workers during this period.[2] The exception was web designers, 20% of whom worked long hours. Average hours worked differed little between all the employed, those in natural and applied sciences, and those in information technology.

IT specialists concentrated in Ontario and in four industries

Seven in 10 IT specialists worked in just four industries—one in four in professional, scientific and technical services alone. Information and culture, another high-tech industry, accounted for 12%;[3] manufacturing, 10%; and public administration, 9%. The latter two likely produced and used high-technology services. By contrast, only one in three of all workers worked in these four industries.

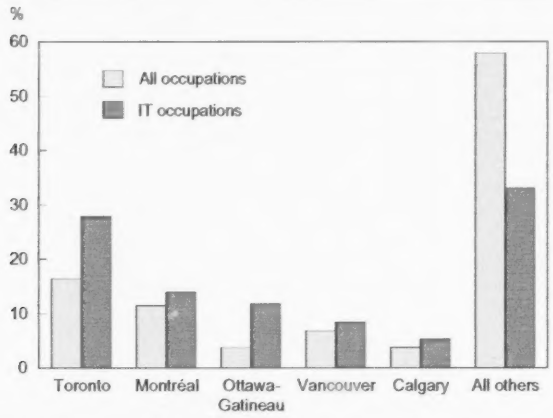
Chart A: Half of IT specialists worked in Ontario.



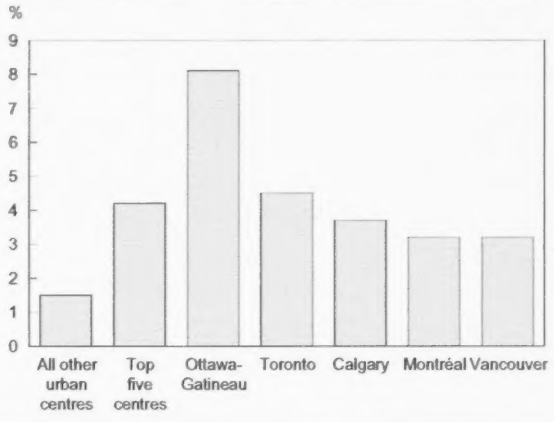
Source: Census of Canada, 2001

Ontario employed one in every two IT specialists in Canada in 2001, substantially higher than its share of all employed (Chart A). Quebec had the second highest proportion (22%), followed by British Columbia (11%) and Alberta (9%). The remaining provinces and territories employed less than 1 in 10.

Chart B: Two-thirds of IT specialists were located in five metropolitan areas...



...with the highest concentration in Ottawa-Gatineau.



Source: Census of Canada, 2001

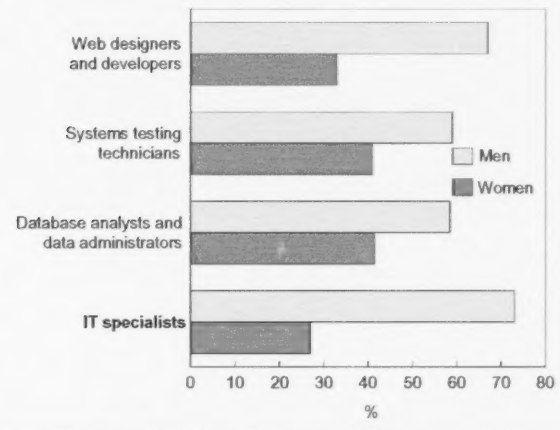
IT specialists were more concentrated in urban areas (93%) than workers overall (81%). Two-thirds were employed in five metropolitan areas: Toronto, Montréal, Ottawa-Gatineau, Vancouver and Calgary (Chart B). The proportion of IT specialists in this group of top five urban centres was almost three times greater than in all other urban centres combined. The highest concentration, over 8%, was in Ottawa-Gatineau. The lower incidence in Toronto and Montréal reflects their much larger workforces.

Women making inroads

Occupations in information technology were dominated by men (73%). Although this proportion was more than in all occupations (53%), it was still significantly less than for the natural and applied sciences as a whole (79%) (Table 3). Over a quarter of IT workers in 2001 were women. The three with the greatest representation of women were database analysts and data administrators (42%), systems testing technicians (41%), and web designers and developers (33%) (Chart C).

Women in IT occupations had higher than average levels of education. Two in every five held a bachelor's degree or higher, compared with one in five of all employed women. More than half had specialized in applied sciences, engineering and mathematics, compared with less than 1 in 10 of all employed women, suggesting that women have made headway into non-traditional fields of study.

Chart C: Two in five database analysts in 2001 were women.



Source: Census of Canada, 2001

Although women made inroads into IT occupations, they had lower median earnings, even though more than 9 in 10 worked full time in 2001 compared with only three-quarters of employed women overall (Table 4). For example, women employed as database analysts had median earnings of $38,900 in 2000 compared with $50,100 for men.[4] Earnings differences may be associated with the slightly lower proportion of women working full time and lower returns to postsecondary education below a bachelor's degree. As in other IT specialties, a high proportion of women employed as database analysts worked full time (90%); however, this was lower than the proportion of men (96%). Furthermore, fewer women in this occupation (43%) had a bachelor's degree or higher compared with men (52%).

In contrast, median earnings for women employed as systems testing technicians ($40,000) and web designers ($29,100) were above those of men. This may in part be due to women's higher educational attainment in both these occupations, as well as to the high proportion working full time (particularly for systems testing technicians). However, women's earnings in both occupations were lower than the median for women in all IT specialties ($41,100). Web designers also had the lowest median earnings among all IT specialists and experienced the highest unemployment rate.

Contribution of immigrants

In 2001, proportionately more immigrants worked in IT occupations (32%) than in all occupations (20%) (Chart D), and even more than in the natural and applied sciences and related occupations (27%). Immigrants made up nearly half of software engineers, 40% of computer engineers, and more than one-third of computer programmers (Chart E). Furthermore, their representation in every IT occupation was above their overall average (20%).

Nearly half the immigrants working in IT occupations came in the 1990s (49%)—31% in the second half of the decade, a period coinciding with the high-technology boom (Chart F). For example, more than 6 in 10 immigrants employed as software engineers arrived in

Table 3: Personal characteristics of IT specialists

	Total	Women	Immigrant		Average age	BA or above
			Both sexes	Women		
	'000	%	%	%	years	%
All occupations	**14,695.1**	**46.9**	**19.9**	**45.9**	**39**	**19.6**
Natural and applied sciences and related occupations	957.1	21.4	27.2	21.4	38	41.0
Professional	525.4	22.2	32.1	22.2	38	60.1
Technical	431.7	20.3	21.2	19.9	38	17.8
IT occupations	**387.5**	**27.0**	**31.5**	**26.5**	**36**	**44.1**
Professional						
Computer engineers (except software)	26.8	14.4	39.5	14.4	37	59.4
Information systems analysts and consultants	103.1	31.2	29.0	29.1	39	47.5
Database analysts and data administrators	13.6	41.5	30.6	40.1	38	48.3
Software engineers	25.9	17.7	47.1	20.1	35	76.0
Computer programmers and interactive media developers	96.6	23.2	36.6	27.8	34	50.1
Web designers and developers	22.2	33.1	24.6	34.4	32	38.1
Technical						
Computer and network operators and web technicians	45.8	25.2	25.0	22.1	36	22.5
User support technicians	47.0	31.0	22.7	25.3	35	21.8
Systems testing technicians	6.6	40.7	35.6	47.5	35	33.2

Source: Census of Canada, 2001

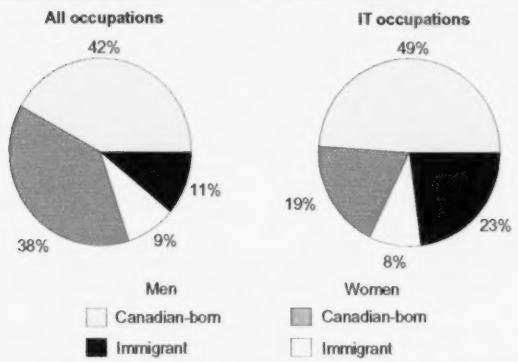
Canada between 1996 and 2001. These figures suggest that the 1997 policy to facilitate the entry of immigrants into Canada to work in this field did indeed have the desired effect.[5]

Software engineers had the highest median earnings ($59,900) of all IT workers, and close to one-third earned at least $75,000 in 2000.

Immigrant women constituted more than 8% of IT workers. While they were the least represented group, their proportion in IT occupations was comparable with that in all occupations (9%).

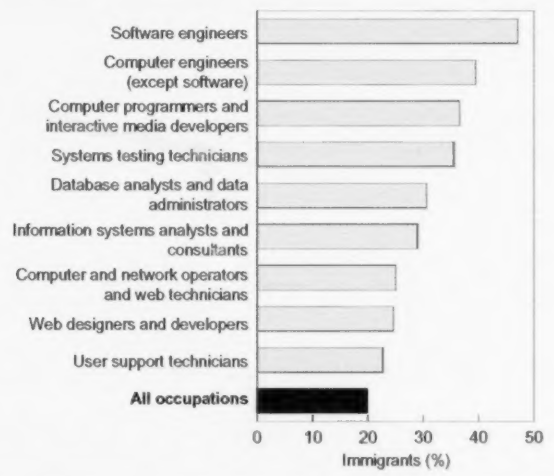
Their presence in IT occupations was also similar to that of women in the total population. Nearly one in two immigrants working as systems testing technicians in 2001 were women, as were two in five database analysts, and one in three web designers.

Chart D: IT occupations employed higher than average proportions of men and immigrants.



Source: Census of Canada, 2001

Chart E: Nearly half of software engineers in 2001 were immigrants.



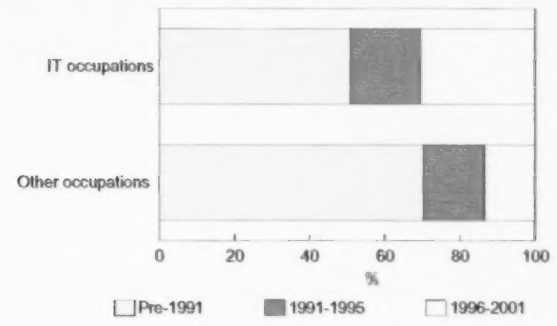
Source: Census of Canada, 2001

Table 4: Employment characteristics of IT specialists

	Median earnings			Earn $75,000+	Full-time work		Work 50 hours+
	Both sexes	Men	Women		Men	Women	
		$			%		
All occupations	**28,000**	**34,000**	**22,400**	**6.8**	**88.4**	**74.4**	**21.7**
Natural and applied sciences and related occupations	44,900	47,000	37,100	14.6	94.8	91.5	18.0
Professional	50,100	52,700	42,100	20.0	95.2	91.8	18.8
Technical	39,400	40,300	31,500	8.0	94.3	91.1	16.9
IT occupations	**45,500**	**47,100**	**41,100**	**14.4**	**94.6**	**91.9**	**14.5**
Professional							
Computer engineers (except software)	57,200	59,900	46,000	27.8	97.4	94.5	19.4
Information systems analysts and consultants	52,000	54,400	48,900	19.3	94.6	93.3	15.5
Database analysts and data administrators	45,000	50,100	38,900	12.8	95.6	90.2	10.7
Software engineers	59,900	60,100	50,200	31.5	97.3	94.2	17.7
Computer programmers and interactive media developers	43,900	44,900	40,100	11.3	95.2	92.7	13.1
Web designers and developers	28,400	28,000	29,100	5.2	86.8	80.7	20.3
Technical							
Computer and network operators and web technicians	39,400	40,200	35,000	6.6	93.7	90.7	14.7
User support technicians	34,900	35,000	33,400	5.8	93.7	92.9	9.7
Systems testing technicians	39,900	39,200	40,000	8.9	94.5	94.0	10.7

Source: Census of Canada, 2001

Chart F: The majority of immigrants in IT occupations arrived in the 1990s.



Source: Census of Canada, 2001

Summary

Information technology occupations accounted for nearly 3% of total employment in Canada in 2001. Workers in this field are relatively young and highly educated. On average, IT specialists in 2001 earned higher employment income and did not work longer hours; fewer were self-employed.

Women made up over one-quarter of IT specialists—4 in 10 database analysts and one-third of web designers. These were, however, relatively low-earning occupations. Web designers and developers, for example, worked relatively longer hours and had lower median earnings compared with other IT occupations.

Recent immigrants were highly represented in IT occupations. Nearly half of software engineers were immigrants, and the majority of them arrived in the second half of the 1990s.

Perspectives

Notes

1 The rate is the same for all occupations (experienced labour force) and differs from the higher rate for the labour force (7.4%) because it excludes first-time job seekers as well as those who were out of the labour force in 2000 and 2001 (inexperienced labour force).

Data source and definitions

In the **2001 Census**, occupations were classified for the first time according to the **National Occupational Classification for Statistics.**

The classification included nine new occupations related to information technology, under the major group 'Natural and applied sciences and related occupations.'

C Natural and applied sciences and related occupations
- C0 Professional occupations in natural and applied sciences
  - C04 Other engineers
    - C047 Computer engineers (except software engineers)
  - C07 Computer and information systems professionals
    - C071 Information systems analysts and consultants
    - C072 Database analysts and data administrators
    - C073 Software engineers
    - C074 Computer programmers and interactive media developers
    - C075 Web designers and developers
- C1 Technical occupations related to natural and applied sciences
  - C18 Technical occupations in computer and information systems
    - C181 Computer and network operators and web technicians
    - C182 User support technicians
    - C183 Systems testing technicians

Labour force activity in the census is defined as follows:

Labour force: the employed and unemployed

Employed: those who worked in the reference week (the week prior to census enumeration day) or were absent from work for various reasons

Unemployed: those who looked for work in the reference week, were on temporary layoff, or had a job starting in four weeks or less

Experienced labour force: employed or unemployed but last worked in 2000 or 2001

Inexperienced labour force: those who last worked prior to 2000 or never worked

2 A recent study showed that hours worked fell by more (-8.6%) than employment (-5.4%) in the computer and telecommunications (CT) sector between the last quarters of 2000 and 2001 (Bowlby and Langlois 2002). By contrast, workers in knowledge-based workplaces were working above average hours in the late 1990s (Drolet and Morissette 2002).

3 For more detailed discussion of the high-technology sector, see Bowlby and Langlois 2002.

4 Income information collected in the 2001 Census was based on the reference year 2000.

5 In response to skill shortages in the software industry, the federal government introduced a pilot project in 1997 to facilitate the entry of immigrants with skills in software development. Known as the Software Development Worker Pilot Program, the pilot was aimed at filling positions for which there were no qualified Canadian citizens or permanent residents. The seven occupations identified were senior animation effects editor, embedded systems software designer, MIS software designer, multimedia software developer, software developer services, software products developer, and telecommunications software designer. More information on the program is available on the Citizenship and Immigration Canada Web site at www.cic.gc.ca/english/press/98/9869-pre.html (accessed July 15, 2003).

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Property taxes

Raj K. Chawla and Ted Wannell

MUNICIPAL GOVERNMENTS PROVIDE many of our most visible services: water, snow removal, garbage collection, policing, and fire protection. The mix of services varies somewhat from province to province, since the framework for municipal services and financing is the domain of provincial governments.[1] Furthermore, the level and mix of services may vary within provinces because of the autonomous authority granted to municipalities.

Regardless of the services provided, property taxes are the major source of revenue for local governments across the country.[2] Municipal governments levy such taxes annually on residential, commercial and industrial properties. Other sources of income include grants or subsidies from the province.

Homeowners pay property tax directly to their local government whereas renters pay through their rent. The tax due is typically calculated by multiplying the assessed value of the property by the tax rate—commonly referred to as 'mill rate' and expressed as dollars of tax per $1,000 of assessed value. Residential properties are usually taxed at lower rates than non-residential properties.[3] For example, in Ontario the residential rate is 85% of the non-residential rate (Slack 2000; OFTS 1993).

Property tax is one of the three main taxes paid by households. The other two are income tax and sales tax. Property tax differs in that it is a tax on an asset rather than a financial flow. Property tax is levied on the full value of the property, not the owner's equity.

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Since property taxes are not directly related to the ability to pay, they may be a particular burden for some homeowners. How is this burden distributed across families with different levels of income? Does the burden vary among the provinces? Do property taxes contribute to after-tax income inequality in Canada? These questions are addressed using information on assets, liabilities and income. Because renters generally do not know the portion of their rent attributable to property taxes, the analysis is limited to homeowning families (see *Data source and definitions*).

Property taxes highest in Central Canada

In 1998, the average homeowner paid $1,830 in property taxes (Table 1), ranging from $640 in Newfoundland and Labrador to $2,230 in Ontario. Quebec was the only other province higher than the Canadian average, at $2,030. In general, property taxes were lower in the Atlantic provinces and higher in Ontario and Quebec, with the Western provinces in the middle.

Property taxes are based on two factors: assessed value and mill rate. The assessed value was not available, but homeowners did estimate the current value of their homes. According to these estimates, average property values were highest in British Columbia ($219,000) and Ontario ($183,000), followed by Alberta ($137,000) and Quebec ($109,000). In the remainder of the country, the average home was valued between $71,000 and $92,000.

Dividing the property tax by the estimated property value yields an estimate of the effective property tax rate. Using this approximation, homeowners in Quebec, Manitoba and Saskatchewan were the most heavily taxed in 1998—1.8% to 1.9% of the estimated property value. At the opposite end of the scale, British Columbian homeowners paid just 0.7%. The effective property tax rates of other provinces were in a tight band between 0.9% (Newfoundland and Labrador) and 1.2% (Ontario).

Table 1: Families by proportion of pre-tax income spent on property and income tax by province, 1998

	Canada	Nfld. Lab.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
						%					
Property tax											
Less than 2.50%	40.5	78.0	65.4	65.1	69.6	29.5	32.1	36.1	43.8	55.8	55.1
2.50 – 4.99%	35.9	18.3	23.9	25.9	20.2	41.0	40.0	37.6	35.1	28.8	28.6
5.00 – 7.49%	11.6	2.1	5.9	4.7	3.6	14.2	13.7	14.7	11.9	7.9	7.8
7.50 – 9.99%	5.1	0.8	2.1	1.9	3.3	6.2	6.2	4.3	4.2	3.8	3.5
10.00 – 24.99%	5.9	0.7	2.8	2.0	3.0	7.9	6.9	6.1	4.1	3.2	4.3
25.00% or more	0.9	0.0	0.0	0.5	0.3	1.2	1.1	1.2	0.8	0.6	0.8
Mean ratio	*2.9*	*1.4*	*2.0*	*2.0*	*1.9*	*3.4*	*3.2*	*3.1*	*2.8*	*2.1*	*2.3*
Income tax											
Less than 2.50%	11.5	21.3	13.9	18.4	18.3	11.8	8.8	12.7	13.8	12.4	12.6
2.50 – 4.99%	3.7	3.5	4.5	3.9	4.9	3.1	4.1	3.3	3.5	4.1	3.1
5.00 – 7.49%	3.9	6.7	4.3	3.8	5.5	2.7	4.9	5.1	3.1	2.7	3.7
7.50 – 9.99%	5.6	6.9	7.5	5.3	7.1	5.2	5.7	4.5	5.9	5.4	5.9
10.00 – 24.99%	58.8	52.6	60.3	59.8	55.4	47.0	64.5	61.5	59.1	63.6	60.9
25.00% or more	16.5	9.0	9.6	8.6	8.9	30.3	12.1	12.8	14.7	11.9	13.9
Mean ratio	*21.3*	*17.9*	*18.1*	*18.3*	*17.5*	*24.5*	*20.5*	*20.4*	*20.5*	*20.8*	*20.7*
Mean pre-tax income ($)	63,640	46,620	50,340	49,070	47,440	59,810	70,480	57,980	53,830	66,430	63,220
Mean home value ($)	149,790	70,920	92,900	87,540	79,430	109,130	183,420	92,350	84,120	136,530	219,170
Mean property tax ($)	1,830	640	1,010	990	900	2,030	2,230	1,770	1,480	1,380	1,430
Mean income tax ($)	13,560	8,340	9,120	9,000	8,300	14,630	14,470	11,850	11,010	13,800	13,110
Property tax to home value ratio (%)	1.22	0.90	1.09	1.13	1.13	1.86	1.22	1.92	1.76	1.01	0.65
Families ('000)	6,888.9	112.2	34.9	218.0	193.2	1,661.4	2,534.1	271.5	248.9	723.5	891.3

Source: Survey of Financial Security, 1999

On average, income taxes far exceed property taxes

Property taxes constitute a fairly small proportion of the overall family tax burden. The average family income tax bill of $13,600 was more than seven times the average property tax bill. As a proportion of total income, 21.3% went for income taxes compared with 2.9% for property taxes.

Quebec had the highest rate of both income taxes (24.5%) and property taxes (3.4%). Income taxes ate up 20% to 21% of family income west of the Quebec-Ontario border, and 17% to 18% in the Atlantic provinces. In relation to income, property taxes were highest in Quebec, Ontario and Manitoba, falling off towards the east and west coasts.

Looking only at averages can understate the property tax burden for some families. Although more than three-quarters of families spent less than 5% of their income on property taxes in 1998, 1 in 15 spent more than 10%. Quebecers again felt the sting disproportionately, with 9.1% spending at least a tenth of their income on municipal taxes. Ontario (8.0%) and Manitoba (7.3%) also showed relatively high numbers.

Income tax is progressive

A tax set at a fixed percentage of income or expenditure is termed a proportionate or flat-rate tax. For example, the GST is 7% on something that costs $1 or $10,000. In contrast, the income tax system is designed to be progressive—the tax rate increases at higher levels of income (see *Tax terminology*). A regressive tax has the opposite relationship with income—the tax rate falls as income increases.

The progressivity of income tax is evident (Table 2). Families with less than $20,000 of pre-tax income in 1998 paid income tax equalling 4.0% of their income. The income tax rate rises for each successive income class, reaching 28.6% for families that brought in $100,000 or more—the mark of a progressive rate structure.

Table 2: Families by proportion of pre-tax income spent on property and income tax by income, 1998

	Total	Under $20,000	$20,000 - $34,999	$35,000 - $49,999	$50,000 - $74,999	$75,000 - $99,999	$100,000 or over
				%			
Property tax							
Less than 2.50%	40.5	12.8	23.4	29.6	43.3	55.7	75.2
2.50 – 4.99%	35.9	16.4	30.0	44.6	45.8	39.7	23.5
5.00 – 7.49%	11.6	13.6	24.8	17.3	7.9	3.9	0.9
7.50 – 9.99%	5.1	12.7	11.9	5.8	2.3	0.5	0.4
10.00 – 24.99%	5.9	35.8	9.7	2.6	0.5	0.2	0.0
25.00% or more	0.9	8.8	0.2	0.1	0.1	0.0	0.0
Mean ratio	*2.9*	*10.0*	*5.2*	*3.9*	*2.9*	*2.4*	*1.8*
Income tax							
Less than 2.50%	11.5	66.3	24.1	2.7	0.8	0.2	0.2
2.50 – 4.99%	3.7	9.2	10.1	3.8	0.9	0.1	0.1
5.00 – 7.49%	3.9	6.2	11.3	4.4	1.5	0.7	0.3
7.50 – 9.99%	5.6	6.7	13.1	8.3	2.8	1.9	0.4
10.00 – 24.99%	58.8	9.6	39.9	74.2	79.2	70.4	47.8
25.00% or more	16.5	1.9	1.4	6.6	14.8	26.8	51.3
Mean ratio	*21.3*	*4.0*	*9.2*	*15.4*	*19.2*	*21.9*	*28.6*
Mean pre-tax income ($)	63,640	13,800	27,550	42,440	61,750	86,620	151,170
Mean home value ($)	149,790	111,900	113,710	128,960	150,240	169,920	227,470
Mean property tax ($)	1,830	1,380	1,440	1,650	1,810	2,090	2,670
Mean income tax ($)	13,560	560	2,540	6,560	11,880	18,950	43,210
Property tax to home value ratio (%)	1.22	1.24	1.26	1.28	1.20	1.23	1.17
Families ('000)	6,888.9	677.3	1,206.5	1,320.0	1,657.6	1,070.1	957.4
Distribution							
Families	100.0	9.8	17.5	19.2	24.1	15.5	13.9
Total income	100.0	2.1	7.6	12.8	23.3	21.1	33.0
Total income tax	100.0	0.4	3.3	9.3	21.1	21.7	44.3
Total property tax	100.0	7.4	13.7	17.3	23.7	17.7	20.2

Source: Survey of Financial Security, 1999

Tax terminology

Effective tax rate: tax paid as a percentage of total pre-tax income.

Marginal tax rate: tax rate levied on the last dollar received in income.

Progressive tax: one in which the effective tax rate increases as income increases. The income tax system is progressive.

Regressive tax: one in which the effective tax rate falls as income increases.

Proportional tax: The effective tax rate remains constant as income changes.

Flat tax: All income is taxed at the same rate.

Elasticity of taxation rate between income class i and j (j > i): This coefficient of elasticity (E_{ij}), used by Maslove (1973), measures the responsiveness to change in the tax rate due to the change in mean incomes from class i to j as follows:

$$E_{ij} = ((R_j - R_i)/(R_j + R_i)) * ((Y_j + Y_i)/(Y_j - Y_i))$$

where R_j and R_i are effective tax rates and Y_j and Y_i are mean incomes. Because elasticities are calculated in a sequentially paired order (between the second lowest and the lowest, between the third and the second lowest, and so on), no elasticity can be calculated for the lowest income class.

If $E_{ij} > 0$, the tax is progressive;

if $E_{ij} < 0$, the tax is regressive; and

if $E_{ij} = 0$, the tax is proportional between classes.

Families tend to live in increasingly expensive homes as their income increases, although the gradient is much less steep for home values than for income. Families with incomes less than $20,000 lived in houses with an average value of $112,000. Those with incomes of $100,000 and over occupied homes averaging $227,000. So while average income increased more than tenfold (from $14,000 to $151,000), the average home value only doubled.

At the local level, property taxes are generally set up as proportional taxes—the final tax is determined by multiplying the assessed property value times a constant mill rate. The Survey of Financial Security shows that effective property tax rates remain remarkably flat across the country. Homeowners in both the lowest and highest income groups paid 1.2%—also the overall average—of the value of their homes in municipal taxes. No other group varied by more than 0.1 percentage points from the average. Thus, despite the great variation in home values and effective mill rates across the country, property taxes, on average, were proportionate to the value of the property being taxed.

Property taxes are regressive with respect to income

Although property taxes are proportionate with respect to property values, they are regressive with respect to family income. In 1998, families with incomes under $20,000 paid 10.0% of their income in property taxes whereas those with incomes of $100,000 and over paid just 1.8% (Chart A). Between these two extremes, the proportion of income consumed by property taxes declined with each step up in family income.

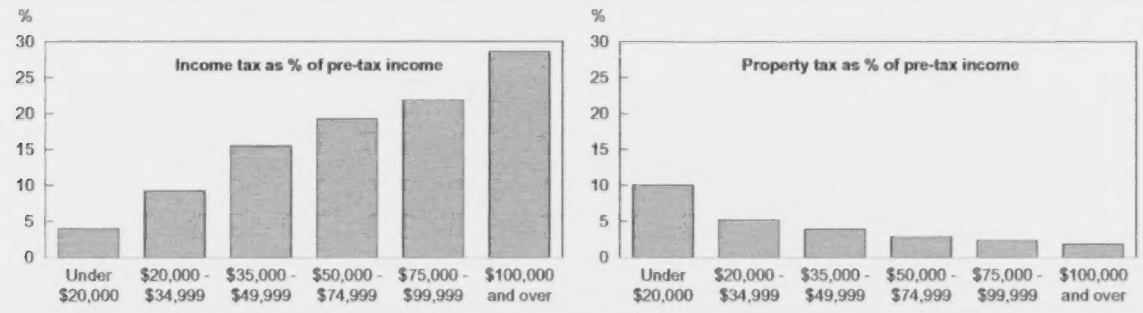
But the burden of property taxes was not the same for everyone within income classes. Property tax share of income varied considerably within groups, particularly at the lower end of the income scale. At the top end, almost all families with incomes of $100,000 and over paid less than 5% of their income in property taxes. For families bringing in less than $20,000, a considerable portion (29.2%) also paid less than 5%, but 44.6% paid more than 10%. Furthermore, 1 in 11 families in the lowest income category had tax bills in excess of 25% of their income, a situation that was virtually non-existent among families with incomes greater than $20,000.

Quantifying progressivity and regressivity

Comparing the rate of change in tax rates with the rate of change of the income being taxed yields a measure of progressivity termed the 'elasticity' of taxes with respect to income.[4] A positive elasticity indicates a progressive tax structure, zero elasticity a perfectly flat structure, and negative elasticity a regressive structure. While income taxes are clearly progressive across all adjacent income groups, property taxes are consistently regressive (Chart B). The pattern of elasticities across income groups shows that most of the action occurs at the lower end of the income distribution.

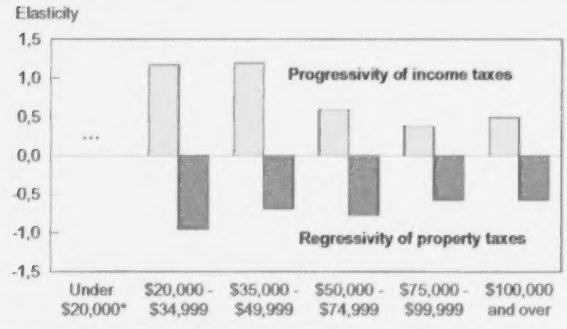
The greatest relative increases in income tax rates occur from the lowest to the lower-middle income groups. These spikes are related to several features of the income tax system. First is the basic progressive structure of income tax rates—they increase across designated income thresholds. Second, some personal deductions at fixed rates provide proportionately

Chart A: Income tax and property tax shares of pre-tax income move in opposite directions.



Source: Survey of Financial Security, 1999

Chart B: Elasticity of income and property taxes is greatest at lower incomes.



Source: Survey of Financial Security, 1999
** No elasticity can be calculated.*

greater tax relief to low-income individuals. Finally, some means-tested tax credits are clawed back as income increases. These features combine to create large proportionate increases in tax rates in the lower-income range since the starting base is effectively zero.

Similarly, property tax elasticity is most regressive at the bottom end of the distribution. This is related to the similarity in home values (and property taxes) across the three lowest income groups combined with large proportionate changes in income from one group to the next.

Property taxes and family income inequality

One premise underlying the progressive income tax system is that it reduces inequality in the distribution of income among families. Thus high-income families pay a greater proportion of income in taxes, and the after-tax income distribution is more equal than the pre-tax distribution. For example, families with incomes of $100,000 and over accounted for 13.9% of all homeowning families but received 33.0% of total income and paid 44.3% of total federal and provincial income tax in 1998. At the other extreme, families with incomes under $20,000 constituted 9.8% of homeowning families, received 2.1% of total income, and paid 0.4% of income tax.

The Gini coefficient is a standard measure of inequality. Higher coefficients indicate more inequality, lower coefficients signal more equal distributions. The measure varies from 0 (everyone has the same income) to 1 (one family has all the income). Among homeowning families, the Gini dropped from a pre-tax 0.362 to a post-tax 0.321, indicating that income taxes reduced inequality in family incomes by about 11% (Table 3).

Since property taxes are regressive, they have the opposite effect on the Gini coefficient—they raise inequality. Considering the effect of property taxes alone, the Gini coefficient rose from 0.362 pre-tax to 0.369 after. Similarly, with property taxes netted out after income taxes, the 0.321 post-income tax Gini rose to 0.329. The effect of property taxes somewhat negates the effect of income taxes in reducing the income inequality.[5] The reduction of 11% in income inequality by income taxes reversed to 9% after property taxes were taken out of post-income-tax family incomes. However, not all families are equally affected.

Table 3: Gini coefficients of family income

	Gini coefficient	Gini index
Total income	**0.362**	**100.0**
Minus property taxes	0.369	101.9
Minus income taxes	0.321	88.7
Minus both taxes	0.329	90.9
Income taxes	0.547	...
Property taxes	0.361	...

Source: Survey of Financial Security, 1999

Property taxes among low-income and elderly families

The elderly and those in low income are the groups most frequently cited as burdened by property taxes. Homeowning families below the low-income cutoff (LICO), both elderly and non-elderly, paid property taxes that were, on average, higher than their income tax bills (Table 4). Property taxes equalled 12% of the income of elderly low-income families and 11% of the income of other low-income families. The average property tax bills of both differed little (maximum of $350) from those of homeowning families above the LICO. In contrast, families above the LICO paid income tax at rates four to five times higher than below-LICO families (with the absolute differences in dollar amounts higher by a factor of at least 17).

Data source and definitions

The analysis is based on the **Survey of Financial Security** (SFS), conducted between May and July 1999. The sample contained 23,000 dwellings from the 10 provinces. Excluded were persons living on Indian reserves, members of the armed forces, and those living in institutions such as prisons, hospitals, and homes for seniors. The SFS interview questionnaire (Catalogue no. 13F0026MIE–01001) is available free on the Statistics Canada Web site at www.statcan.ca/cgi-bin/downpub/research.cgi. For more details about the sample, response rates, handling of missing data, weighting, and so forth, see *The assets and debts of Canadians: An overview of the results of the Survey of Financial Security* (Catalogue no. 13-595-XIE).

The survey collected socio-demographic and labour force characteristics of persons aged 15 years and over, and the assets and debts of their families as of the time of the survey. Income for 1998 was compiled from authorized linkage to tax records or collected in person. Collection was by personal interview, although respondents could also complete the questionnaire themselves. Financial data were sought from the family member most knowledgeable about the family's finances. Proxy response was accepted.

The survey also asked about major on-going expenses associated with the principal residence: mortgage payments, property taxes (including school taxes, if paid separately), rent, electricity, water, and other services. Rent was not apportioned to property tax, utility charges, or landlord's share. Although expenses could be reported as a monthly or quarterly average, the data were processed and compiled on an annual basis.

Since missing property tax data were not imputed, homeowning families who did not report property taxes paid in 1998 were excluded from the sample. Thus the analysis is based on a sample of 9,769 or an estimated 6,889,000 homeowning families. Survey data are subject to sampling and non-sampling errors, especially for provinces with relatively smaller samples. Therefore, interprovincial comparisons should be made with caution.

The SFS estimate of property taxes paid in 1998 was $12.6 billion compared with $18.3 billion published by the Public Institutions Division (PID) of Statistics Canada (Statistics Canada 2003). The PID data for 1998 are based on a census of municipalities obtained from provincial departments of municipal affairs. (Data for more recent years are based on a sample survey.) One would expect a larger estimate from the administrative data simply because of differences in coverage. While the SFS covers only taxes paid on owner-occupied dwellings, the administrative data also include taxes paid on rented and vacant dwellings. In addition, the administrative data cover all property taxes collected—commercial and industrial as well as residential. The relationship between the SFS and PID is in the expected direction, but determining if the size of the difference is appropriate would require substantial further study.

Family: Refers to economic families and unattached individuals. An economic family is a group of persons sharing a common dwelling and related by blood, marriage (including common law) or adoption. An unattached individual is a person living alone or with unrelated persons.

Elderly family: A family with a major income recipient aged 65 or over.

Major income recipient: The person in the family with the highest income before tax. If two persons had exactly the same income, the older one was treated as the major income recipient.

Pre-tax family income: Sum of incomes received by the six oldest family members aged 15 and over during the calendar year 1998 from all sources: wages and salaries, net income from farm and non-farm self employment, investment income (interest earned, dividends, net rental income, etc.), government transfers (Employment Insurance benefits, Old Age Security, child benefits, Canada/Quebec Pension Plan benefits, social assistance, etc.), retirement pension income, and alimony. Excluded are income in kind, tax refunds, and inheritances.

Low-income family: Families are classified using the after-tax low-income cutoffs for 1998 published by Statistics Canada. For more details, see *Income in Canada, 1998* (Catalogue no. 75-202-XPE).

Income tax paid: Sum of federal and provincial income tax paid during the calendar year 1998 by all family members.

Market value of owner-occupied home: Market value at the time of the survey and as reported by the family member most knowledgeable about the family finances. It is not an assessed value, which is usually less than the market value.

Gini coefficient: Used as a measure of inequality in the distribution of income, the Gini coefficient lies between 0 (no inequality) and one (total inequality—that is, one family has all the income). Thus, the closer this coefficient is to 1.0, the greater the inequality in the distribution of incomes among families.

Table 4: Family income, property taxes, financial assets, and home equity by type of family

	Pre-tax income (I)	Property tax (PT)	Income tax (IT)	Financial assets*	Equity in home**	Ratio (PT/I)	Ratio (IT/I)
			$			%	
Non-elderly							
Low-income	14,040	1,520	820	47,580	91,130	10.8	5.8
Non-low-income	72,940	1,870	16,110	93,650	103,830	2.6	22.1
Elderly							
Low-income	13,360	1,560	450	78,630	132,080	11.7	3.4
Non-low-income	42,740	1,780	7,610	148,920	134,160	4.2	17.8
All families	63,640	1,830	13,560	102,170	109,450	2.9	21.3
Low-income	13,930	1,530	750	52,840	98,060	11.0	5.4
Non-low-income	66,650	1,850	14,340	105,160	110,140	2.8	21.5

Source: Survey of Financial Security, 1999

* *Chequing/savings accounts in financial institutions, term deposits, Canada Savings Bonds, other bonds, stocks, mutual funds, shares in privately held companies, RRSPs, RRIFs, RESPs, RHOSPs, DPSPs, treasury bills, loans to others, mortgages, and other financial investments.*

** *Market value of home less outstanding mortgages.*

On average, homeowning families—even those below the LICO—had significant assets in 1999 compared with the size of their property tax bill. Regardless of income, elderly homeowners held similar equity in their houses ($132,000 to $134,000). Moreover, elderly families above the LICO held an average $149,000 in financial assets,[6] while those below averaged $79,000.[7]

Summary

Property taxes make up a relatively small component of the tax bills of most Canadian families. On average, homeowners paid 2.9% of their family income for property taxes in 1998, compared with 21.3% in income taxes.

Quebec homeowners faced the highest tax burden, paying 24.5% of income for income taxes and 3.4% for property taxes. Along with Manitoba, Quebec had the highest tax rate with respect to the estimated value of the home, at 1.9%. Saskatchewan followed closely at 1.8%, while all other provinces had rates of 1.2% or lower.

Although property taxes are generally manageable for most families, about 1 in 15 paid 10% or more of their income in property taxes. This figure rose to 1 in 11 in Quebec, and was also relatively high in Ontario and Manitoba.

Income taxes and property taxes differ in their relationship to family income. Under Canada's income tax system, higher-income families pay higher rates of income tax—a progressive tax structure. Although property taxes are proportionate with respect to property values across income classes, low-income families spend a higher proportion of their income on property taxes than do higher-income families. Property taxes are therefore regressive with respect to family income.

The progressive nature of income taxes and regressive nature of property taxes are evident throughout the income distribution, but the steepest gradient for both types of taxes is at the lower end of the income distribution.

The redistributive nature of income taxes lowers a standard measure of inequality (the Gini coefficient) by about 11%. However, property taxes work in the opposite direction, increasing the post-income tax measure by almost 2%.

Although discussions about property tax effects frequently focus on the elderly, data show that low-income families—young or old—pay relatively high proportions of their incomes in property taxes. However, elderly homeowners have relatively high levels of home equity and financial resources, particularly compared with elderly renters.

Perspectives

Notes

1 The role of the province in local decision making is described in Bird and Slack (1993) as follows:

> . . . Since the British North America Act was first implemented, the provinces have had the exclusive right to create or disband municipal corporations. The provinces also determine the powers and responsibilities of their constituent municipalities, and hence their expenditure requirements. They also dictate which revenue sources are available to finance these expenditures. [For example, some provinces delegate primary and secondary

> school funding to municipalities, while others fund schools from provincial revenues.] Municipalities can only undertake those functions assigned to them by the provinces.
>
> In each province, there is generally a provincial statute governing various aspects of municipalities. . . . (p. 13)

2 The term 'property' as used in this article refers to an owner-occupied home or farm; property owned but used for rental or business purposes is excluded.

3 Non-residential properties include multi-unit apartments, retail stores, office towers, parking lots, farms and managed forests, vacant land, pipelines, and industrial complexes.

4 Elasticities shown in Chart B are based on pre-tax family incomes. However, use of after-tax family incomes (out of which property taxes are paid) would have resulted in fractionally smaller elasticities but would not have changed the outcome of the analysis.

5 Several provinces offer property tax rebates for lower income homeowners through the income tax system. However, a separate analysis of Ontario and Manitoba—two provinces with such rebate programs—indicate that the net effect of income and property taxes was a smaller drop in inequality than was observed at the national level and in the remaining provinces. So any progressive effect associated with rebates is likely small. A more thorough assessment of this issue would require detailed income tax information on all provincial rebate programs.

6 Financial assets include savings accounts, term deposits, bonds, mutual funds, equity shares, registered savings/retirement income plans, loans, mortgages, and other financial investments.

7 In contrast, elderly renters had much lower average financial assets—$57,900 for non-LICO families and just $11,200 for LICO families—and, of course, no home equity (data not shown).

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More information on provincial differences in property taxes can be found in *Key labour and income facts.*

PERSPECTIVES
ON LABOUR AND INCOME

Fact-sheet on property taxes

In 1999, 6 out of every 10 families owned a home. The rate of homeownership varied by province. Newfoundland and Labrador had the highest rate (73%) and Quebec the lowest (55%), while Ontario and British Columbia with rates of 60% and 58% respectively were close to the national average.

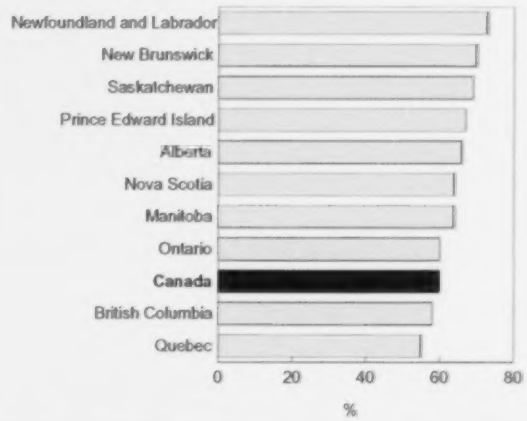
Provincial differences in property taxes

The 1999 Survey of Financial Security (SFS) collected the market value (rather than the assessed value) of homes in May to July 1999 and the property tax paid during the calendar year 1998. These charts and tables examine the link between the two at a provincial level.

The value of a home depends on several factors: size, location, appreciation in value since acquisition, local demand/supply situation, and price of developed land. Therefore, market values will vary not only across provinces but also among localities within a province.

A public-use microdata file for the 1999 SFS is available on CD-ROM (13M0006XCB, $2,000). For more information, contact Client Services, Income Statistics Division at 1 888 297-7355; (613) 951-7355; fax: (613) 951-3012; income@statcan.ca.

Rate of homeownership



Source: Survey of Financial Security, 1999

For further information, contact Raj K. Chawla, Labour and Household Surveys Analysis Division. He can be reached at (613) 951-6901 or raj.chawla@statcan.ca.

Statistics Canada Statistique Canada

Canada

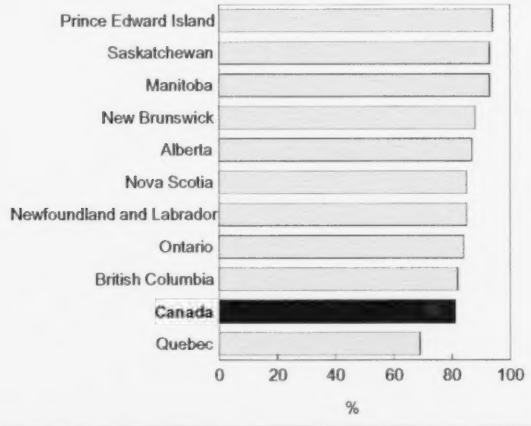
The owned homes took several forms: single/detached (with or without adjoining land in the case of farm families), double/semi-detached, row/terrace, duplex, apartment, or mobile home in a trailer park. The majority of homeowning families lived in a single detached home, the proportion varying from 93% in Manitoba to 73% in British Columbia. For Ontario and Quebec, the proportions were 80% and 74% respectively. The second largest group in Ontario were owners of double/semi-detached homes (8%). Second place in Newfoundland and Labrador was held by duplex owners (4%), and in the remaining provinces by owners of 'other' structures.

Homeowning families by type of property

	Single/ detached	Double/ semi-detached	Row/ terrace	Duplex	Other
			%		
Canada	**79.5**	**5.2**	**4.3**	**3.4**	**7.6**
Newfoundland and Labrador	88.9	2.2	1.8	4.4	2.7
Prince Edward Island	88.6	0.7	0.0	1.9	8.7
Nova Scotia	87.9	2.8	0.6	2.1	6.6
New Brunswick	86.0	0.8	0.8	1.6	10.8
Quebec	73.8	6.3	2.7	8.4	8.8
Ontario	80.5	7.9	5.1	1.5	5.0
Manitoba	92.5	1.8	1.4	0.7	3.7
Saskatchewan	91.5	0.5	1.5	0.8	5.8
Alberta	82.0	2.5	5.8	1.7	8.0
British Columbia	72.8	2.4	7.4	3.0	14.4

Source: Survey of Financial Security, 1999

Share of total property taxes paid by owners of single/detached homes



Source: Survey of Financial Security, 1999

Overall, families in single/detached homes paid the bulk (81%) of the total $12.6 billion paid for property taxes in 1998. The rate was over 90% in Prince Edward Island, Saskatchewan and Manitoba; and between 82% and 88% in Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Alberta and British Columbia. Owners of single/detached homes in Quebec, on the other hand, contributed only 69% of the total property tax in that province.

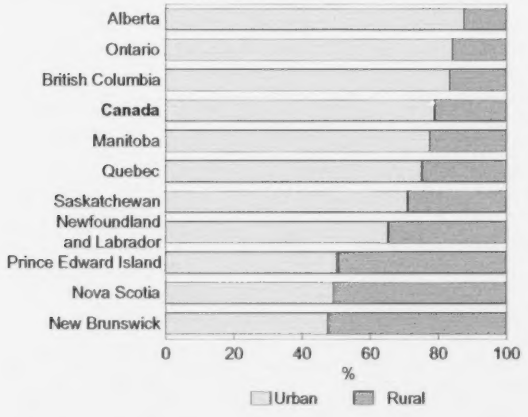
In 1998, homeowning families with a single/detached home in Ontario paid the highest property tax ($2,319) while those in Newfoundland and Labrador paid the lowest ($611). Some of the interprovincial variation can be attributed to differences in the urban-rural mix and the value of homes across Canada.

Average property tax by type of property

	Single/ detached	Double/ semi-detached	Row/ terrace	Duplex	Other
			$		
Canada	**1,861**	**1,999**	**1,494**	**2,455**	**1,361**
Newfoundland and Labrador	611	675	636	1,367	349
Prince Edward Island	1,073	1,025	0	925	388
Nova Scotia	956	745	980	3,830	559
New Brunswick	922	2,468	1,032	1,433	497
Quebec	1,898	2,220	2,083	2,903	2,120
Ontario	2,319	1,992	1,793	1,889	1,699
Manitoba	1,786	1,474	760	1,842	1,880
Saskatchewan	1,517	2,961	2,271	1,086	691
Alberta	1,456	1,896	852	1,274	810
British Columbia	1,605	1,609	972	1,696	721

Source: Survey of Financial Security, 1999

Homeowning families in urban and rural areas

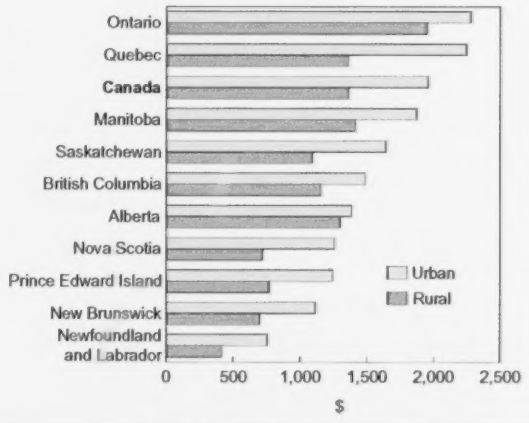


Source: Survey of Financial Security, 1999

The urban-rural split of homeowning families shows considerable variation by province. In Ontario, Alberta and British Columbia, between 83% and 88% of all families were living in urban areas, compared with around 50% in Prince Edward Island, Nova Scotia and New Brunswick. Overall, 79% of Canadian families were living in urban areas in 1999.

Irrespective of province, families in urban areas paid more in property taxes than their counterparts in the rural areas. The differences were more pronounced in some provinces than in others. Although families in urban areas of Quebec and Ontario paid on average almost the same (around $2,300), those in rural areas paid quite different amounts ($1,362 in Quebec; $1,952 in Ontario). Across Canada, the average amount paid by urban families ranged from $758 in Newfoundland and Labrador to $2,281 in Ontario. The amount paid by rural families ranged from $416 and $1,952 for the same provinces. The range of mean property taxes paid by urban and rural families was almost the same across Canada.

Average property taxes in urban and rural areas

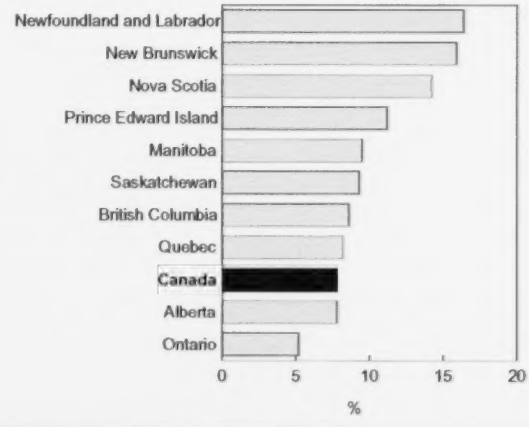


Source: Survey of Financial Security, 1999

A family with no or low income does not pay income tax. However, any family that owns a home must pay property tax. The proportion of families who paid property tax but no income tax was higher in the Atlantic provinces (ranging from 16.4% in Newfoundland and Labrador to 11.2% in Prince Edward Island) than in the Prairies (from 9.5% in Manitoba to 7.8% for Alberta). The proportion in Ontario was just over 5%.

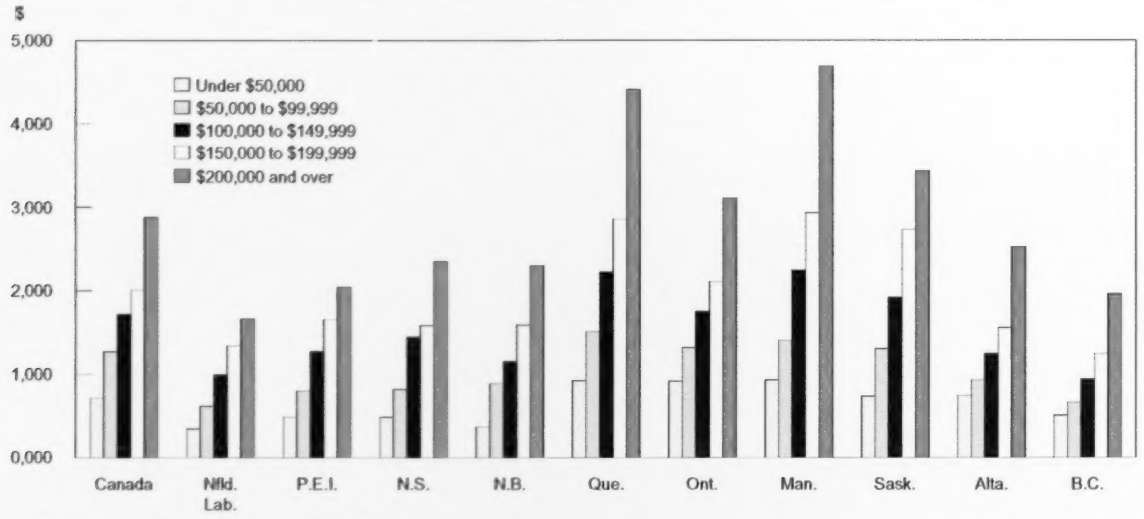
Families who paid property tax but no income tax were mostly elderly. The average age of the major income recipient in these families varied between 58 and 68 years across provinces. In families paying both kinds of tax, the average age ranged from 48 to 51.

Families paying property tax but no income tax



Source: Survey of Financial Security, 1999

Average property taxes by value of property



Source: Survey of Financial Security, 1999

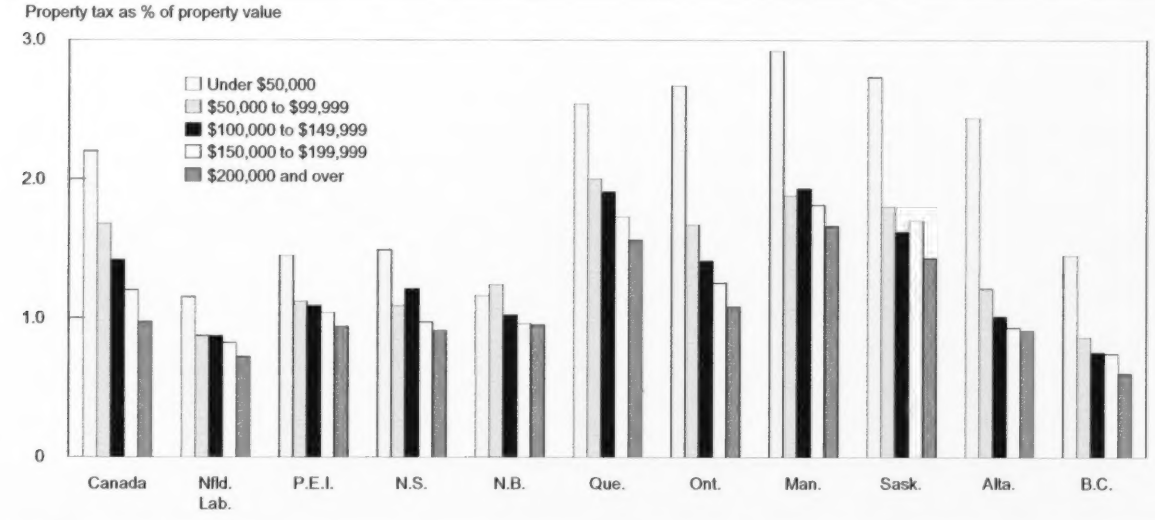
In all provinces, the average tax paid rose as the value of the home increased, although the incremental tax increases with respect to home values were somewhat different. For example, in New Brunswick, families with homes worth $200,000 and over paid 6.3 times the tax paid by those with homes valued under $50,000, compared with 5.1 in Manitoba and 3.4 in both Ontario and Alberta.

Evidently, families owning homes of equal market value were paying different amounts of property tax across the provinces. To illustrate, families with homes valued under $50,000 paid, on average, property taxes ranging between $344 and $926. Those with homes worth between $100,000 and $149,999 paid between $933 and $2,245. For homes $200,000 and over, the range was between $1,660 and $4,691. For a given market value group, families in Manitoba and Quebec paid the highest taxes.

Families in British Columbia with high-priced homes (69% of all families owned homes worth $200,000 and over) did not necessarily pay higher property taxes. The average amount paid by these families was $1,957—fairly close to the $1,660 paid by similar families in Newfoundland and Labrador. Similarly priced homes in Ontario and Alberta, on the other hand, had tax bills of $3,111 and $2,526 respectively.

These tables and charts complement the article "Property taxes" in this issue. For definitions and a description of the data source, see the article.

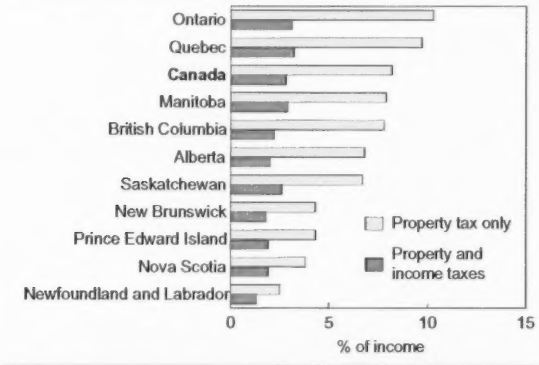
The ratio of average property tax to market value of home



Source: Survey of Financial Security, 1999

The ratio of average property tax to market value of home is another indicator that can be used for interprovincial comparisons of property taxes. In almost all instances, the ratio declines as the market value increases, indicating that property taxes are regressive in relation to home values. The ratio ranged between 1.15 and 2.92 for families with homes worth under $50,000, and between 0.72 and 1.66 for those with homes priced at $200,000 and over.

Property tax paid by payers and non-payers of income tax



Source: Survey of Financial Security, 1999

Homeowning families paying property tax but no income tax in 1998 spent a larger proportion of their income on property tax than families paying both property tax and income tax. In Ontario and Quebec, property tax was 10% of income for families paying only property tax compared with about 3% for families paying both taxes. In Newfoundland and Labrador, the proportions were 2.5% and 1.3%.

The average income of families who paid only property tax ranged from $16,000 to $18,000 across the provinces compared with $52,500 to $73,400 for those who paid both taxes. Families paying only property tax were most likely elderly with low incomes.

Decomposition of the difference in average property tax paid by province relative to Ontario, 1998

	Percentage decomposition due to:	
	Market value of home	Effective tax rate
	%	
Newfoundland and Labrador	76.1	23.9
Prince Edward Island	85.9	14.1
Nova Scotia	90.7	9.3
New Brunswick	91.9	8.1
Quebec	546.6	-446.6
Ontario	...	...
Manitoba	297.6	-197.6
Saskatchewan	191.3	-91.3
Alberta	61.3	38.7
British Columbia	-40.3	140.3

Source: Survey of Financial Security, 1999

Of the total difference in average property taxes paid in 1998 by families in Newfoundland and Labrador and in Ontario, 24% was due to the difference in effective tax rates and the remaining 76% to the difference in market values of homes; the corresponding proportions for Alberta were 39% and 61%. On the other hand, the difference in the average taxes paid by families in Ontario and those in Quebec, Manitoba, or Saskatchewan was much more attributable to the difference in market values of homes, whereas the difference in their effective tax rates had a more modifying and compensatory effect. However, the reverse was true in the case of British Columbia and Ontario where the difference in effective tax rates (proxied as mill rates) was more pronounced.

Since property taxes and values of owner-occupied homes are strongly associated, and since this association varies within a province, it may be interesting to see how unequally property taxes and market values of homes are distributed within each province. Does the province with the most unequally distributed market values of homes show the most unequal distribution of property taxes as well?

In each province, property taxes were more unequally distributed than market values of owner-occupied homes. The highest gap (38%) occurred in Nova Scotia, the lowest (9%) in British Columbia. For families in Ontario, the gap amounted to 10%—much closer to that experienced by their counterparts in British Columbia.

Gini coefficients of market values of owner-occupied homes and property taxes by province

	Values of homes (G1)	Property taxes (G2)	Ratio (G2/G1)
		%	
Newfoundland and Labrador	0.333	0.403	1.21
Prince Edward Island	0.286	0.388	1.36
Nova Scotia	0.299	0.412	1.38
New Brunswick	0.278	0.363	1.31
Quebec	0.288	0.326	1.13
Ontario	0.281	0.308	1.10
Manitoba	0.280	0.364	1.30
Saskatchewan	0.340	0.397	1.17
Alberta	0.276	0.379	1.38
British Columbia	0.324	0.352	1.09

Source: Survey of Financial Security, 1999